

REMARKS

Applicants' invention is set forth in the pending claims, including amendments provided herein.

In the pending Official Action, the Examiner rejects claims 3-4, 14-16, 20-24 and 38-41 under 35 USC 102(e) as being anticipated by the Van Gestel et al. '483 reference, and further rejects claims 28-32 and 42-44 under 35 USC 103 (a) over the same reference as being directed to subject matter which would have been obvious to one of ordinary skill in the art at the time the invention was made.

Applicants respectfully traverse the rejections as follows.

Claims 3-4

It is first noted that the applied '483 reference teaches production of clock time stamps in synchronization with PCRs and recording the time stamps. On the other hand, the present invention (as recited in claims 3 and 4) produces clocks from time stamps added to packets, and records the packets together with the added time stamps.

While the prior art system and applicants' system do have similarities, in that both work towards synchronizing recording of the packets with the time stamps, it is courteously submitted that applicants' recited method functions differently from the '483 art in the manner of producing the clocks (based on time stamps added to packets -- e.g., "in synchronism with changes in value of time stamps"), as well as in "recording the packets with the time stamps".

Therefore, claims 3-4 are novel over the applied reference and reconsideration of the rejection thereover under 35 USC 102 is in order.

Claims 14-16

Irrespective of any similarities which may be found between these claims and the applied art, and in order to expedite prosecution, applicants have incorporated the recitation of claim 3 in each of claims 14 and 16, and thus in claim 15 depending from claim 14.

Therefore, similarly to claim 3, it is respectfully submitted that claims 14-16 are novel over the applied reference and reconsideration of the rejection thereover under 35 USC 102 is in order.

Claims 20-22

Answer
It is noted that claims 20-21 essentially provide apparatus implementing methods recited in claims 3 and 4 and, at least for reasons similar to the foregoing, are similarly novel over the applied art. However, it should be appreciated that claims 20 and 22 are still further differentiated from the '483 reference in that applicants' claims clearly define the recording locations.

Inasmuch as such locations are not identified in the applied art, reconsideration and withdrawal of the rejection under 35 USC 102 is in order.

Claims 23-24

Irrespective of any similarities which may be found between these claims and the applied art, and in order to expedite prosecution, applicants have incorporated the recitation of claim 20 in claim 23, and thus in claim 24 depending therefrom.

Therefore, similarly to claim 20, it is respectfully submitted that claims 20-22 are novel over the applied reference and reconsideration of the rejection thereover under 35 USC 102 is in order.

Claims 28-32

It is courteously submitted that the inventive features recited in claims 28-32 relate to novel and unobvious features which are neither taught nor suggested by the applied art. That is, while the Action admits that the applied Van Gestel et al. '483 reference fails to teach features relating to the flag recited in claims 28-32, the Examiner refers to the same as being "an inherent part of the transport stream or the ID for the PCR clock or met by the header or ID identifying the PCR clock data associated with an MPEG multi-program transport stream having PCR clock reference packets, in accordance with MPEG standard".

Applicants respectfully traverse this assertion for the following reasons.

The very fact that the Action does not identify any single additional teaching as being suggestive of applicants' recited structure is, itself, indicative that the art lacks either disclosure or suggestion of the same. Somehow, it is presumed in the Action that by mere exposure to prior art use of IDs for a clock, or to headers identifying the clock, one would have found it obvious to provide the specific flag within the header of the time control packet itself, as recited by applicants.

The Examiner is respectfully requested to identify specific portions of the prior art which support such an allegation.

In fact, applicants submit that when properly understood, it will be appreciated that the present invention, as recited in claims 28-32, differs from the prior art use of headers identifying clock data, and that such a feature should be clearly apparent upon consideration of amended claim 28.

In that regard, Fig. 12 shows a digital broadcasting receiver 100 and a packet data recording/reproducing apparatus 200 illustrating a structure recited in these claims. As clearly

shown therein, the digital broadcasting receiver 100 includes a flag circuit 160 which provides an output to a header adding circuit 180. Moreover, the packet data recording/reproducing apparatus 200 includes generally a PCR (Program Clock Reference) extracting circuit 220.

As disclosed with relation thereto, PSI (Program Specific Information) is used to allow the broadcasting receiver 100 to select a desired channel regardless of use of transmission lines. The PSI is usually transmitted together with packets each having a fixed length of 188 bytes, and may include various tables and identifiers.

In operation, once various signals are decoded and a particular received program is to be reproduced, decoder 170 decodes the received packets in synchronism with clocks having a constant frequency by extracting a PCR from a PCR packet of a selected program to provide decoded video and audio to a display system.

When the received packets are recorded (on magnetic tape for example) through the recording/reproducing apparatus 200, the switching circuit 150 is selectively connected for providing the received packets to the header adding circuit 180. Header adding circuit 180 adds 4-byte headers to the received 188-byte packets for transmission to the recording/reproducing apparatus 200.

As clearly disclosed in the specification, "These headers have flag areas for identifying the PCR."

In other words, the inventive arrangement of Fig. 12 adds specific flag data to the packet headers. This feature is further described in the specification as being implemented by the header adding circuit 180, which provides a PCR identification flag to the flag area, of the header to be added to the packet which has the PCR. The flag is

advantageously provided by the invention to facilitate extraction of the PCR in the recording/reproducing apparatus 200.

Amended claim 28 now clearly and explicitly recites that the identification information producing means operates for adding a predetermined time-control-information-identification flag to the time control packet.

In other words, the flag is not part of a clock ID or the like used in the prior art, but instead represents separate data which is added by the invention to the clock.

Claim 29 continues to recite, with greater specificity, that the identification information producing means adds the flag to the header.

Accordingly, it is courteously submitted that structure for implementing such further addition of a flag, and particularly to the header by the identification information producing means, is distinct from and would not have been obvious from the art applied to claims 28-32, whether or not considered together with the various sources referenced in the Action. Therefore, reconsideration and withdrawal of the rejection of claims 28-32 under 35 USC 103 is in order.

If the Examiner persists in rejecting claims 28-32, then it is courteously requested that specific references be identified to support the rejection.

Claims 38-44

Applicants respectfully submit that the system recited in claims 38-44 operates to discard packets when system clocks are not synchronized.

Reference is made, for example, to recitation in claims 38 and 41 of synchronization determining means providing a second signal when the arrival time control clocks are

asynchronous with the input of the time reference value, and of switching means in claim 38 which switches to a second operation provided in response to the second signal (indicating asynchronism) to inhibit operation of the arrival time control clock generating means. In claim 41, a controlling means deactivates operation of a recording means (which records the packets) in response to the second signal.

Applicants courteously submit that the concept of discarding packets when system clocks are not synchronized is neither disclosed in nor suggested by the '483 reference.

Indeed, it is noted that the Action appears to have overlooked this feature of the invention, as nothing in pages 2 or 3 of the Action addresses or refers either to the second signal or the lock flag, or to inhibiting or deactivating operations, as hereinabove noted.

More particularly, applicants submit that Van Gestel et al. do not disclose a circuit corresponding to or suggestive of the discarding switching circuit 30 illustrated in applicants' Fig. 19. As described in the present specification,

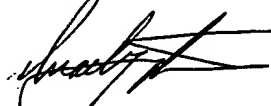
"the packets transmitted to the digital interface circuit I are supplied to the time stamp adding circuit 3 through the switching circuit 30 only when [the lock flag produced by clock generator 400 shows the synchronization of operations]. Alternatively, when the operation of the PLL 20 is not synchronous with the input of the PCR, the packets are discarded without being transmitted to the time stamp adding circuit 3. ... Therefore, in ... this embodiment, when the operation of the PLL 20 of the clock generator 400 is not synchronous with the input of the PCR from the PCR extracting circuit 2 ... the packets are discarded through the switching circuit 3 without being recorded on the magnetic tape 260. This avoids underflow and overflow of a buffer memory provided in the processor 9."

Thus, while the lock flag is explicitly recited in claim 40 and the second signal is recited in claims 39 and 41, so that packets are discarded when clocks are not synchronized, in the Van Gestel et al. system incorrect time stamps are added to packets and recorded, thus resulting in a buffer flow problem in a reproducing operation.

Inasmuch as the applied art fails to teach the above features, it is courteously submitted that reconsideration and withdrawal is in order of the rejection under 35 USC 102 of claims 38-41, as well as of the rejection under 35 USC 103 of claims 42-44, which depend from claims 38, 40 and 41.

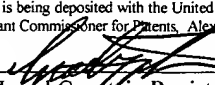
In view of the foregoing, it is respectfully submitted that reconsideration and withdrawal is in order for the rejections set forth in the outstanding Official Action. Upon such withdrawal, it is further submitted that the application is in condition for allowance and an early indication of the same is courteously solicited. In order to expedite resolution of any remaining issues and further to expedite passage of the application to issue, the Examiner is respectfully requested to contact the undersigned by telephone at the below listed local telephone number if any further comments, questions or suggestions arise in connection with the application.

Respectfully submitted,
CLARK & BRODY.



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